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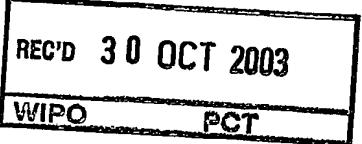


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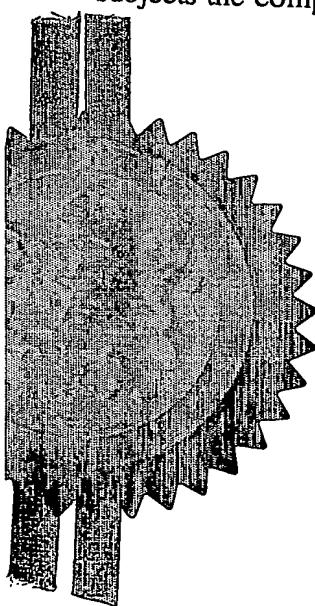


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Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

1. Your reference	RBT/P301258GB
2. Patent application number (The Patent Office will fill in this part)	0217946.3 F 2 AUG 2002
3. Full name, address and postcode of the or of each applicant (<i>underline all surnames</i>)	Supreme Plastics Holdings Limited Supreme House 300 Regents Park Road Finchley London N3 2TL
Patents ADP number (<i>if you know it</i>)	8180622002
If the applicant is a corporate body, give the country/state of its incorporation	United Kingdom
4. Title of the invention	IMPROVEMENTS IN RECLOSEABLE BAGS AND LIKE CONTAINERS
5. Name of your agent (<i>if you have one</i>)	W. P. Thompson & Co.
"Address for service" in the United Kingdom to which all correspondence should be sent (<i>including the postcode</i>)	Eastcheap House, Central Approach Letchworth Herts SG6 3DS
Patents ADP number (<i>if you know it</i>)	158003
6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (<i>if you know it</i>) the or each application number	Country Priority application number (<i>if you know it</i>) Date of filing (Day/month/year)
7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application	Number of earlier application Date of filing (Day/month/year)
8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (<i>Answer 'yes' if:</i> a) <i>any applicant named in part 3 is not an inventor, or</i> b) <i>there is an inventor who is not named as an applicant, or</i> c) <i>any named applicant is a corporate body.</i> <i>See note (d)</i>	Yes

Patents Form 1/77

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Continuation sheets of this form

Description	4
Claims	1
Abstract	1
Drawing(s)	1

10. If you are also filing any of the following, state how many against each item.

Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

Request for preliminary examination and search (*Patents Form 9/77*)

Request for substantive examination (*Patents Form 10/77*)

Any other documents
(Please specify)

11.

We request the grant of a patent on the basis of this application

Signature W.P. Thompson & Co. Date August 1, 2002
W. P. Thompson & Co.

12. Name and daytime telephone number of person to contact in the United Kingdom.

Roger B Thomson
01462 682139

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IMPROVEMENTS IN RECLOSEABLE BAGS AND LIKE CONTAINERS

This invention relates generally to reclosable bags and like containers, and is particularly concerned with reclosable bags which incorporate a zipper, i.e. male and female profiled elements which are engageable and separable in order to close and open the bag.

The invention is particularly applicable to reclosable bags which have the zipper applied using cross-web technology.

10 The invention is also concerned with methods of manufacturing reclosable bags and like containers which incorporate cross-web zippers.

In the manufacture of reclosable bags which incorporate both a zipper and a top seal, the consumer may find it 15 difficult to open the top seal to gain access to the reclosable zipper. It is therefore an object of the present invention to provide a reclosable bag or like container in which the opening of the top seal by the consumer is facilitated.

Broadly in accordance with the present invention this is 20 achieved by providing the reclosable bag with a tear strip, tape or string which protrudes from the finished bag and which can be grasped and pulled by the consumer to open the top seal and enable access to be gained to the reclosable zipper.

In a preferred embodiment of the invention the tear strip, 25 tape or string is attached to the zipper, for example by a peel seal material, and extends through the completed top seal to protrude from the top of the bag.

The bag can be manufactured by attaching to each zipper which is applied to the film a length of tear strip, tape or string to one of the profile members of the zipper, and attaching a tail of strip, tape or string to the film material 5 in an orientation which will cause it to lie within the intended top seal area. Then, when the top edge of the completed bag is severed to separate it from the adjacent bag, a short length of tear strip, tape or string will be left protruding.

10 Preferably, when the tear strip, tape or string is attached to the film it is concertinaed, so that when the completed bag is detached this will ensure that a length of strip, tape or string is made available to be grasped.

In order that the invention may be more fully understood, 15 one presently preferred embodiment in accordance with the invention will now be described by way of example and with reference to the accompanying drawings, in which:

Fig. 1 is a schematic illustration of the application of zipper strips and tear strings to a film;

20 Fig. 2 is a schematic illustration of a completed bag prior to its severance from the adjacent bag;

Fig. 3 is a schematic illustration of the severed bag with the protruding tear string; and

25 Fig. 4 is a schematic illustration of the bag after the tear string has been pulled to open the top seal.

Referring first to Fig. 1, there is shown a film or web 10 of plastics material which travels in the direction indicated

by arrow 12. Zippers 14 are applied to the film at regularly spaced intervals, for example using appropriate cross-web techniques. Each zipper 14 comprises male and female profile elements which are interengageable one with the other. Either before the zipper is applied to the film, or at the same time as the zipper is applied to the film, a length of tear string 16 is attached to the zipper. The tear string 16 is attached to the zipper along the full length of the zipper, and at one end has a tail 18 extending beyond the end of the zipper. This tail of string 18 is attached directly to the film 10 so as to lie generally in the direction of movement of the film and extending towards the area of the film at which the top seal of the bag will be made. The tail of string 18 is concertinaed over a part of its length as indicated at 20, at the approximate position where the completed bag will be severed from the adjacent bag.

The tear string 16 can consist for example of a strong plastics material, such as nylon or PET, preferably coated with a peel seal material for reasons which will become apparent hereinafter.

Fig. 2 shows a completed bag 22 having a bottom seal 24 and a top seal 26. As can be seen from Fig. 2, the tear string 16 is positioned to lie on the side of the zipper 14 which faces towards the top seal 26. The concertinaed portion 20 of the tear string is trapped within the top seal zone. In the manufacturing process, the completed bag 22 is severed from the adjacent bag by a cutting knife (not shown). The position of

the knife cut is indicated by arrow 28.

Fig. 3 shows the completed bag after operation of the cutting knife. Here, the tear string 16 still has a portion which is trapped within the top seal 26. However, the 5 concertinaed portion 20 of the string, when released by the cutting operation, is free to protrude from the top of the sealed bag, to enable it to be grasped.

If the protruding portion of the tear string 16 is grasped and pulled, then the top seal will be opened by the movement of 10 the string and the length of string which lies alongside the zipper 14 will be peeled from the zipper, as illustrated in Fig. 4. The mouth of the bag 22 will then be open and the zipper 14 will be accessible.

It will be appreciated that it is essential to the 15 invention that there should be a portion of the tear strip, tape or string which projects from the top end of the completed bag, in order to provide something for the consumer to grasp and pull. However, the use of a concertinaed section, although a convenient way to achieve this, is not to be regarded as 20 restricting the way in which this could be achieved.

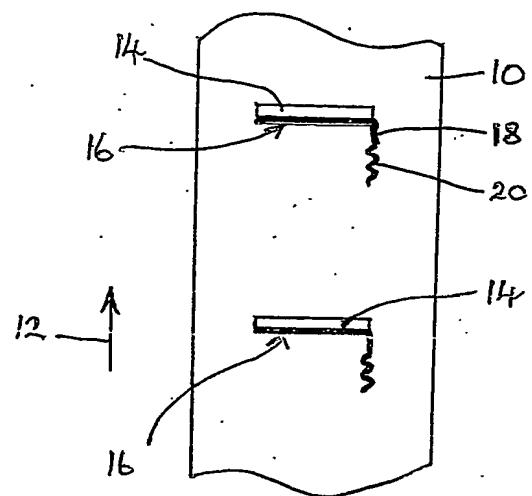


Fig. 1.

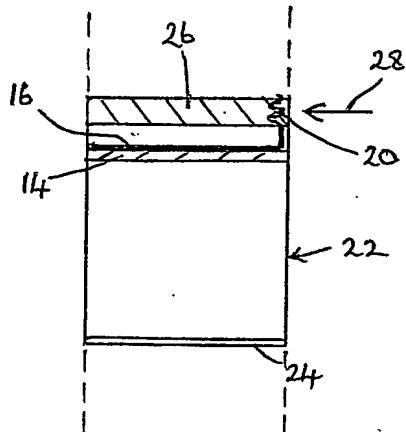


Fig. 2.

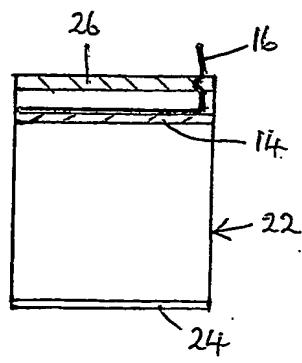


Fig. 3.

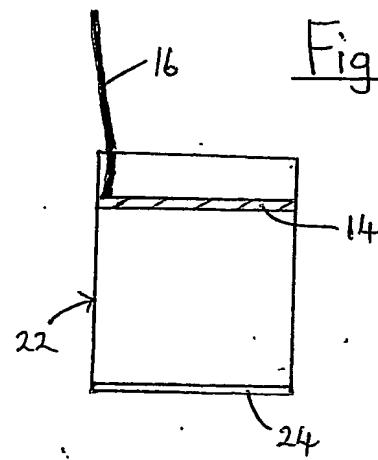


Fig. 4.

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